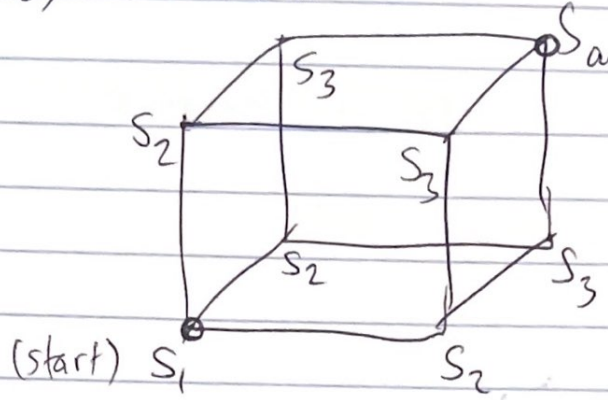
Assuming the states by radial symmetry, and given the fact that movement along each side is equally probable, we have...

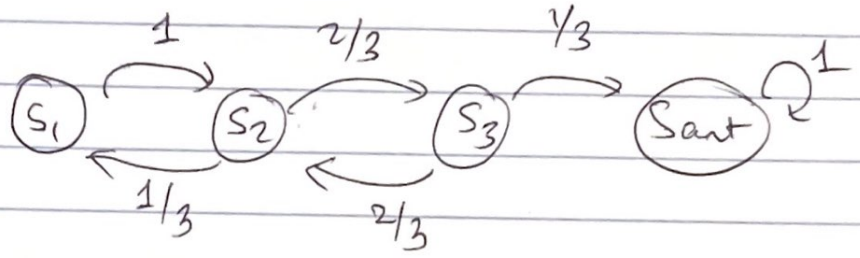


Markov chain approach

$$S_1 = 1 + S_2$$

$$S_2 = 1 + \frac{2}{3} S_3 + \frac{1}{3} S_1$$

$$S_3 = 1 + \frac{2}{3} S_2 + \frac{1}{3} S_{ant}$$



by definition we have $S_{ant} = 0$

$$\Rightarrow \quad S_1 = 1 + \left(3 + \frac{3}{5} S_1\right) = 4 + \frac{3}{5} S_1$$

$$\Rightarrow \frac{2 S_1}{5} = 4 \Rightarrow \boxed{S_1 = 10} \text{ Ans}$$